

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A method, comprising:
maintaining an initial configuration assigning multiple local interfaces to one initial local address;
for each local interface, receiving a remote address of a remote interface on at least one remote device to which the local interface connects; and
using the initial local address to identify the local interfaces assigned to the initial local address in response to receiving a same remote address for each remote interface connected to the local interfaces assigned the initial local address.
2. (Original) The method of claim 1, further comprising:
generating at least one identifier in response to receiving multiple remote addresses from the remote interfaces connected to the local interfaces; and
assigning different identifiers to the local interfaces previously assigned the initial local address in response to generating the at least one identifier.
3. (Original) The method of claim 2, wherein the initial local address comprises a port address of a port to which the local interfaces are assigned as part of the initial configuration.
4. (Original) The method of claim 3, wherein each generated identifier comprises an additional port address, further comprising:
configuring an additional port in the device for each generated additional port address;
and
assigning local interfaces to the ports, including the additional port and port having the initial local address.

5. (Original) The method of claim 4, wherein the local interfaces assigned to one port connect to remote interfaces having a same remote address.

6. (Original) The method of claim 2, wherein the at least one received remote address is received as part of an identification sequence, further comprising:
transmitting the initial local address to the remote interfaces connected to the local interfaces.

7. (Original) The method of claim 6, wherein the identifiers assigned to the local interfaces, including the at least one generated identifier, comprise local addresses, further comprising:

initiating an additional identification sequence in response to generating the at least one local address; and

transmitting the local addresses identifying the local interfaces to the connected remote interfaces in response to the additional identification sequence.

8. (Original) The method of claim 1, wherein the at least one remote device and a local device including the local interfaces implement the SAS architecture, wherein the local and remote addresses comprise SAS addresses, and wherein the local and remote interfaces comprise PHYs.

9. (Original) The method of claim 1, wherein the remote interfaces having different remote addresses are on different remote devices.

10. (Original) The method of claim 2, wherein generating the at least one identifier comprises generating a different identifier for each received different remote address, wherein a combination of the identifiers and the initial local address are used to identify the local interfaces assigned.

11. (Original) The method of claim 10, wherein the plurality of identifiers comprise domains and wherein the initial local address comprises a port address of a port to which the

local interfaces are assigned as part of the initial configuration, wherein the local interfaces remain assigned to the port having the initial local address.

12. (Original) The method of claim 10, wherein the remote interfaces having different remote addresses are on different remote devices, wherein the combination of each of the plurality of identifiers and the default local address identify the local interfaces within a local device and wherein the initial local address identifies the local interfaces within the remote devices.

13. (Original) The method of claim 10, wherein the plurality of identifiers comprise domains, further comprising:

for each received remote address, generating a different domain in a local device including the local interfaces connected to the remote interfaces having the remote addresses.

14. (Original) The method of claim 13, wherein the generated domains include one domain in the initial configuration.

15. (Currently Amended) A device in communication with a plurality of remote interfaces on at least one remote device, comprising:

a plurality of local interfaces;

an initial configuration assigning multiple local interfaces to one initial local address;

circuitry capable of causing operations, the operations comprising:

[[i)] for each local interface, receiving a remote address of one remote interface to which the local interface connects; and

[[ii)] using the initial local address to identify the local interfaces assigned to the initial local address in response to receiving a same remote address for each remote interface connected to the local interfaces assigned the initial local address.

16. (Original) The device of claim 15, wherein the operations further comprise:
generating at least one identifier in response to receiving multiple remote addresses from the remote interfaces connected to the local interfaces; and

assigning different identifiers to the local interfaces previously assigned the initial local address in response to generating the at least one identifier.

17. (Original) The device of claim 16, wherein the initial local address comprises a port address of a port to which the local interfaces are assigned as part of the initial configuration.

18. (Original) The device of claim 17, wherein each generated identifier comprises an additional port address, and wherein the operations further comprise:

configuring an additional port in the device for each generated additional port address;
and

assigning local interfaces to the ports, including the additional port and port having the initial local address.

19. (Original) The device of claim 18, wherein the local interfaces assigned to one port connect to remote interfaces having a same remote address.

20. (Original) The device of claim 16, wherein the at least one received remote address is received as part of an identification sequence, wherein the operations further comprise:

transmitting the initial local address to the remote interfaces connected to the local interfaces.

21. (Original) The device of claim 16, wherein the identifiers assigned to the local interfaces, including the at least one generated identifier, comprise local addresses, wherein the operations further comprise:

initiating an additional identification sequence in response to generating the at least one local address; and

transmitting the local addresses identifying the local interfaces to the connected remote interfaces in response to the additional identification sequence.

22. (Original) The device of claim 15, wherein the at least one remote device and the device implement the SAS architecture, wherein the local and remote addresses comprise SAS addresses, and wherein the local and remote interfaces comprise PHYs.

23. (Original) The device of claim 15, wherein the remote interfaces having different remote addresses are on different remote devices.

24. (Original) The device of claim 16, wherein generating the at least one identifier comprises generating a different identifier for each received different remote address, wherein a combination of the identifiers and the initial local address are used to identify the local interfaces assigned.

25. (Original) The device of claim 24, wherein the plurality of identifiers comprise domains and wherein the initial local address comprises a port address of a port to which the local interfaces are assigned as part of the initial configuration, wherein the local interfaces remain assigned to the port having the initial local address.

26. (Original) The device of claim 24, wherein the remote interfaces having different remote addresses are on different remote devices, wherein the combination of each of the plurality of identifiers and the default local address identify the local interfaces within the local device and wherein the initial local address identifies the local interfaces within the remote devices.

27. (Original) The device of claim 24, wherein the plurality of identifiers comprise domains, wherein the code is executed to further perform:

for each received remote address, generating a different domain in the local device including the local interfaces connected to the remote interfaces having the remote addresses.

28. (Original) The device of claim 27, wherein the generated domains includes one domain in the initial configuration.

29. (Currently Amended) A system in communication with at least one remote device having a plurality of remote interfaces, comprising:

a circuit board;

an adaptor coupled to the circuit board, comprising:

[[i)] a plurality of local interfaces;

[[ii)] an initial configuration assigning multiple local interfaces to one initial local address;

[[iii)] circuitry capable of causing operations to be performed, the operations comprising:

[[a)] for each local interface, receiving a remote address of one remote interface to which the local interface connects; and

[[b)] using the initial local address to identify the local interfaces assigned to the initial local address in response to receiving a same remote address for each remote interface connected to the local interfaces assigned the initial local address.

30. (Original) The system of claim 29, wherein the operations further comprising: generating at least one identifier in response to receiving multiple remote addresses from the remote interfaces connected to the local interfaces; and

assigning different identifiers to the local interfaces previously assigned the initial local address in response to generating the at least one identifier.

31. (Original) The server of claim 30, wherein the initial local address comprises a port address of a port to which the local interfaces are assigned as part of the initial configuration.

32. (Currently Amended) An article of manufacture comprising at least one of a hardware device having hardware logic and a computer readable storage medium having computer executable code for interfacing local interfaces in a local device with connected remote interfaces in at least one remote device, wherein the article of manufacture causes operations to be performed, the operations comprising:

maintaining an initial configuration assigning multiple local interfaces to one initial local address;

for each local interface, receiving a remote address of one remote interface to which the local interface connects; and

using the initial local address to identify the local interfaces assigned to the initial local address in response to receiving a same remote address for each remote interface connected to the local interfaces assigned the initial local address.

33. (Original) The article of manufacture of claim 32, wherein the operations further comprise:

generating at least one identifier in response to receiving multiple remote addresses from the remote interfaces connected to the local interfaces; and

assigning different identifiers to the local interfaces previously assigned the initial local address in response to generating the at least one identifier.

34. (Original) The article of manufacture of claim 33, wherein the initial local address comprises a port address of a port to which the local interfaces are assigned as part of the initial configuration.

35. (Original) The article of manufacture of claim 34, wherein each generated identifier comprises an additional port address, wherein the operations further comprise:

configuring an additional port in the device for each generated additional port address;
and

assigning local interfaces to the ports, including the additional port and port having the initial local address.

36. (Original) The article of manufacture of claim 35, wherein the local interfaces assigned to one port connect to remote interfaces having a same remote address.

37. (Original) The article of manufacture of claim 33, wherein the at least one received remote address is received as part of an identification sequence, wherein the operations further comprise:

transmitting the initial local address to the remote interfaces connected to the local interfaces.

38. (Original) The article of manufacture of claim 37, wherein the identifiers assigned to the local interfaces, including the at least one generated identifier, comprise local addresses, wherein the operations further comprise:

initiating an additional identification sequence in response to generating the at least one local address; and

transmitting the local addresses identifying the local interfaces to the connected remote interfaces in response to the additional identification sequence.

39. (Original) The article of manufacture of claim 32, wherein the at least one remote device and a local device including the local interfaces implement the SAS architecture, wherein the local and remote addresses comprise SAS addresses, and wherein the local and remote interfaces comprise PHYs.

40. (Original) The article of manufacture of claim 32, wherein the remote interfaces having different remote addresses are on different remote devices.

41. (Original) The article of manufacture of claim 33, wherein generating the at least one identifier comprises generating a different identifier for each received different remote address, wherein a combination of the identifiers and the initial local address are used to identify the local interfaces assigned.

42. (Original) The article of manufacture of claim 41, wherein the plurality of identifiers comprise domains and wherein the initial local address comprises a port address of a

port to which the local interfaces are assigned as part of the initial configuration, wherein the local interfaces remain assigned to the port having the initial local address.

43. (Original) The article of manufacture of claim 41, wherein the remote interfaces having different remote addresses are on different remote devices, wherein the combination of each of the plurality of identifiers and the default local address identify the local interfaces within a local device and wherein the initial local address identifies the local interfaces within the remote devices.

44. (Original) The article of manufacture of claim 41, wherein the plurality of identifiers comprise domains, wherein the operations further comprise:

for each received remote address, generating a different domain in a local device including the local interfaces connected to the remote interfaces having the remote addresses.

45. (Original) The article of manufacture of claim 44, wherein the generated domains include one domain in the initial configuration.

46. (Original) The article of manufacture of claim 32, wherein the article of manufacture stores instructions that when executed result in performance of the operations.